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UNITED STATES DISTRICT COURT

TERRITORY OF GUAM

UNITED STATES OF AMERICA, Plaintiff, vs. GUAM WATERWORKS AUTHORITY and the GOVERNMENT OF GUAM, Defendants.	CIVIL CASE NO. 02-00035 **DECLARATION OF JULIE R. SHANE IN SUPPORT OF DEFENDANT GWA'S REPLY TO THE UNITED STATES' RESPONSE TO DEFENDANT GWA'S MOTION FOR DISPUTE RESOLUTION**

ORIGINAL

I, Julie R. Shane, P.E. declare as follows:

1. I am the Supervising Engineer (Wastewater Section) for the Guam Waterworks Authority ("GWA") and a professional environmental engineer licensed in Connecticut and Guam. I began my employment for GWA in that capacity in October 2006. Previously I worked for DZSP21 as the wastewater engineer for the Navy's wastewater systems on Guam, and prior to that I worked for the Connecticut Department of Environmental Protection (CTDEP) in the Permits, Enforcement and Remediation Division (PERD). My work in PERD as a Sanitary Engineer III was specific to permits and enforcement of the National Pollution Discharge Elimination System ("NPDES") program, and Connecticut has primacy for NPDES. I have personal knowledge of the matters stated herein and, if called upon to testify, could and would competently testify thereto.

2. On June 30, 1986, USEPA issued GWA 301(h) NPDES permit GU0020141 for the Northern District Wastewater Treatment Plant's (NDWWTP) ocean discharge, which expired on June 30, 1991. On December 28, 1990 GWA, which was then the Public Utility Agency of Guam (PUAG), submitted a permit application for the discharge. On February 5, 2001 GWA submitted a revised permit application to reflect updated data. GWA has not received a new operating permit from USEPA.

3. On June 30, 1986, USEPA issued GWA 301(h) NPDES permit GU0020087 for the Agana WWTP's ocean discharge, which expired on June 30, 1991. On December 28, 1990 GWA, which was PUAG, submitted a permit application for the discharge. On June 30, 2000 GWA submitted a revised permit application to reflect updated data. GWA has not received a new operating permit from USEPA.

4. On March 2, 2007 GWA completed corrective actions to restore primary treatment operational capacity to the Agana WWTP after 452 days of renovations. In November 2006, GWA completed renovations of the Northern District WWTP, including primary clarifiers, prearation and aerated grit removal and installation of a new primary sludge pump. According to Direct Responsible Charge (DRC) and senior treatment plant operator William "Bernie" Sadler the Guam Environmental Protection Agency was on-hand to witness the start-up of all repaired

equipment at the Northern District WWTP. On March 2, 2007, GWA submitted a certification letter to EPA stating that this work was complete.

5. On March 9, 2007, GWA began to monitor the Agana and Northern District WWTPs for suspended solids, biochemical oxygen demand (BOD), chemical oxygen demand (COD) and settleable solids biweekly. Prior to the renovation, GWA completed analysis weekly. GWA also developed a plan to create a dedicated wastewater laboratory at the Agana WWTP and to monitor those parameters five times per week, as well as a plan to provide ongoing performance improvements at both plants above and beyond the requirements of paragraphs 39 and 42 of the SO. GWA did not plan individual tests across the Agana clarifiers, as only two clarifiers are operational at any one time and so were not all running during the 52 days allotted for testing prior to the Paragraph 42 performance evaluation response dates. At Northern, both rehabilitated clarifiers were put into service on August 4, 2006, and there was no reason to believe that either clarifier alone operated differently that the two together. Since removal efficiencies across operating clarifiers meet industry standards and the plant was approaching permit compliance, individual clarifier analysis was deemed to be unnecessary. A review of NPDES required Discharge Monitoring Report (DMR) parameter data during the last week of April, 2007 (52 days after the Agana WWTP renovations were completed) showed significant and increasing improvements in the results and the removal efficiencies. A true and correct copy of GWA's removal efficiency evaluation is attached as Exhibit 1.

6. On April 30, 2007, GWA submitted a certification letter to EPA regarding its paragraph 42 obligations under the SO. In that letter, GWA certified to the sampling protocol that was ongoing and to additional actions beyond the Paragraph 42 requirements that GWA was completing. GWA believed that a spirit of cooperation existed between GWA and USEPA in working towards full GWA compliance and that providing the maximum information possible regarding ongoing activities, even those not required by the SO, as well as offering to provide routine updates, was part of maintaining that relationship. In that letter GWA certified that "The Hagatña WWTP exceeded only the monthly average for BOD and TSS for the two months that the plant has been on line. The data has shown an overall downward trend in the two months, and is very close to compliance." GWA provided specific actions planned to ensure that trend continued and the plant would be able to meet the permit limits. GWA also noted "that two

months of operation are inadequate to fully optimize and assess the treatment capabilities of the newly rehabilitated plant" and that "the above actions will bring the Hagatña WWTP into full compliance with all parameters of its NPDES permit." GWA fully anticipated that if EPA did not concur that the plant was moving toward compliance (making advanced primary treatment unnecessary), or otherwise felt that GWA's response was inadequate, EPA would provide comments to that effect in accordance with Paragraph 42.

7. On July 30, 2007, GWA submitted quarterly DMRs to EPA for April – June 2007. The DMRs showed that the Agana WWTP was out of compliance for a single parameter (BOD concentration 86mg/L; limit is 80 mg/L) for April and 100% compliance for May and June. The results confirmed the GWA certified expectation that the plant would be in full compliance, and GWA presumed that no further actions regarding the performance evaluation were necessary. Despite being 100% compliant, GWA continues implement the non-SO actions of the April 30 letter in order to optimize plant operations.

8. On October 31, 2007, GWA submitted quarterly DMRs to EPA for July – September 2007. The DMRs showed that the Agana WWTP was 100% compliant for the quarter.

9. On May 4, 2007, GWA submitted a certification letter to EPA regarding its paragraph 39 obligations under the SO. In that letter, GWA certified to the sampling protocol that was ongoing and to additional actions beyond the Paragraph 39 requirements that GWA was completing. GWA stated that mechanical repairs were being completed, and since GWA had previously certified to meeting the paragraph 39 requirements these referred to additional repairs. GWA believed that a spirit of cooperation existed between GWA and USEPA and that providing the maximum information possible regarding ongoing activities, even those not required by the SO, as well as offering to provide routine updates, was part of maintaining that relationship. In that letter GWA noted that the Northern District WWTP "has shown an increased ability to improve removal efficiencies, and this trend is expected to continue." The data has shown an overall downward trend in the two months, and is very close to compliance." GWA provided specific actions planned to ensure that trend continued and the plant would be able to meet the permit limits. GWA also stated that "the above actions will bring the Northern District WWTP

into full compliance with all parameters of its NPDES permit." GWA fully anticipated that if EPA did not concur that the plant was moving toward compliance (making advanced primary treatment unnecessary), or otherwise felt that GWA's response was inadequate, EPA would provide comments to that effect in accordance with Paragraph 39.

10. In e-mails received from Mike Lee of EPA on May 24 (Exhibit 2) and July 17 (Exhibit 3) he provided no indication that the submittals under paragraphs 39 and 42 for the performance evaluations were unacceptable and would not, in the opinion of EPA, meet the SO requirements. His communications did not indicate that any urgency was required by GWA.

11. On July 30, 2007, GWA submitted quarterly DMRs to EPA for April – June 2007. The DMRs showed that the Northern District WWTP was in 100% compliance for all concentration parameters for April and had slightly elevated levels of total suspended solids (TSS) and settleable solids for May and June. The results confirmed the GWA certified expectation that the plant continues to move towards full compliance, and GWA presumed that no further actions regarding the performance evaluation were necessary. As we move closer to being 100% compliant, GWA continues implement the non-SO actions of the May 4 letter in order to optimize plant operations. For the loading parameters which are based upon the amount of inflow to the plant, the limits to the plant are based upon the permitted limits of the 1986 permit. Do to population increases in the NDWWTP collection area, the plant has significantly higher inflow than it did 20 years previously, and therefore limits based upon much lower flows are not attainable, and a reasonable assessment of the effectiveness of the treatment operation based on a 20 year old permit is not possible. GWA would be well within permit loading limits using current flows to develop those limits based upon EPA standards and procedures for issuance of permit limits

12. On March 15, 2007 GWA sent Mike Lee of EPA a letter requesting a bypass of the Agana WWTP in order to complete rehabilitation work at the Agana Main Sewage Pump Station (SPS). The bypass was expected to be minimized by pumping around the station. On March 27, 2007 GWA received a conditional approval of the bypass from Mr. Lee.

13. During April and May, 2007, GWA determined that by purchase of additional pumping capacity, the risk of bypassing the WWTP could be virtually eliminated. On June 28, 2007, GWA discussed this possibility with Mike Lee and sent an e-mail follow-up to the conversation. On July 3, 2007 GWA received an e-mail from Mr. Lee stating that his "preference is for GWA to acquire the additional pumps thereby avoiding the need to bypass the treatment plant except for emergency situations" and requesting a formal submittal from GWA. During July 2007, GWA discovered a significant safety risk involved in preparing the plant for the bypass that would require additional resources and time so the work could be completed safety. On July 27, 2007 GWA submitted a schedule with three options for completing the work with varying degrees of environmental risk. All options maximized safety.

14. The Agana WWTP has been continuously 100% compliant since May 2007, and therefore the Agana Main SPS work is not required "to ensure proper wastewater treatment" as stated in the September 4, 2007 press release from EPA. While the failure of any sewage pump station would cause environmental harm, this is true of any of GWA's 77 sewage pump stations, and there is no reason to believe that the Agana WWTP poses any specific risk of complete failure. The four pumps are 100% operational, and only two pumps are utilized for normal flow conditions. The pump has adequate redundant capacity to meet current flow demands. GWA is proceeding with the work in order to maximize operational efficiency. Unless otherwise directed by EPA GWA will continue to take actions designed to complete the work in the manner that is least disruptive of the WWTP processes in order to maximize environmental protection and in accordance with the preference stated by Mr. Lee.

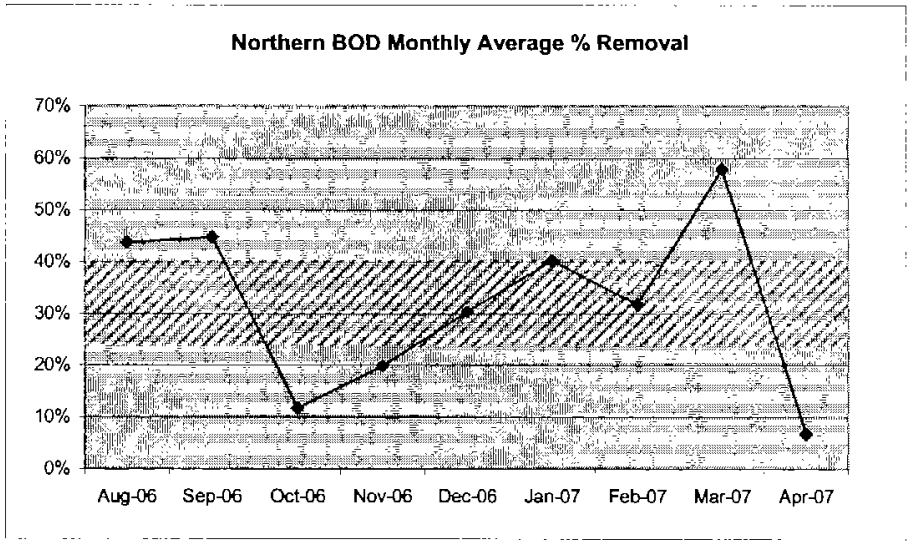
15. GWA provided both formal submittals and informal updates in good faith and determined that those submittals were acceptable based upon my knowledge of a NPDES regulator's responsibility to notify a permittee of submittals deemed to be inadequate, a lack of response from EPA and on DMR results for the Agana and Northern District WWTPs, and the goodwill and lack of urgency shown in all subsequent communications by EPA.

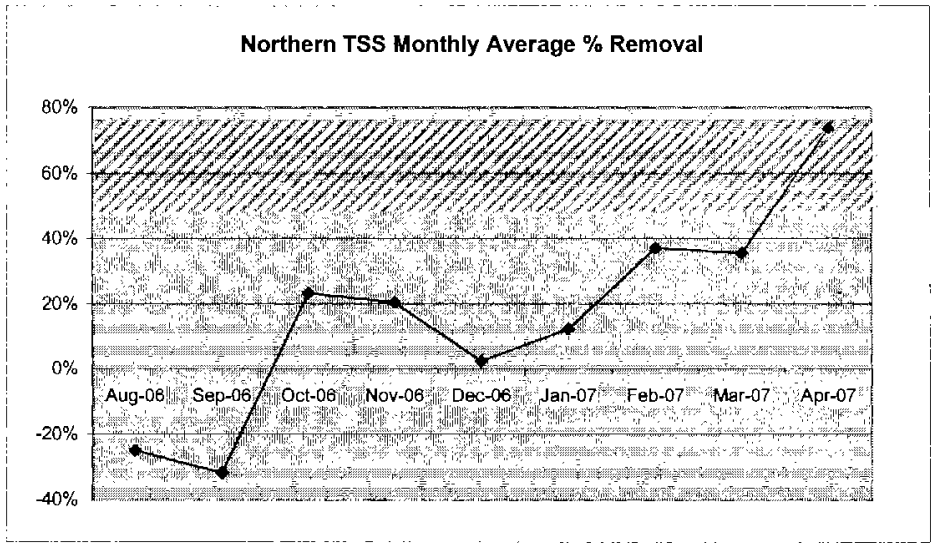
I declare under penalty of perjury under the laws of the Territory of Guam and the United States of America that the foregoing is true and correct.

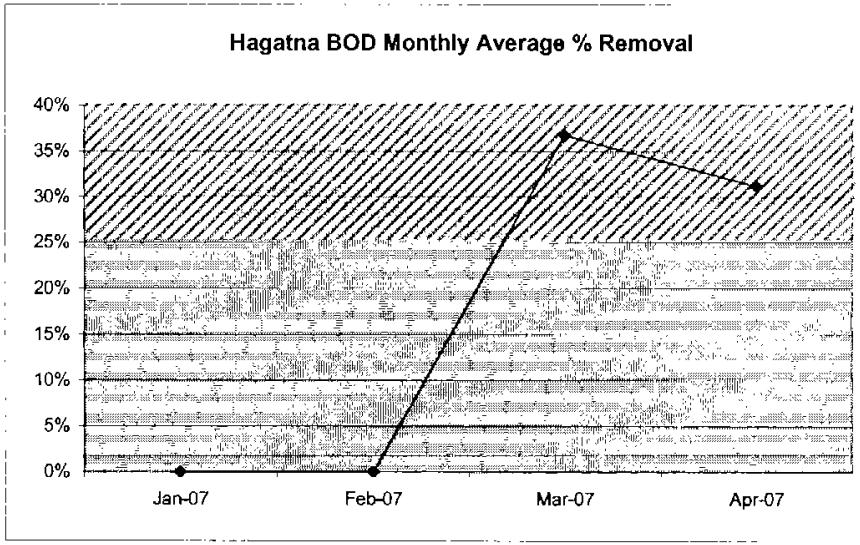
Executed this 5th day of December, 2007 at Tamuning, Guam.

Julie R. Shane, P.E.
GWA Supervising Wastewater Engineer

DECLARATION OF JULIE R. SHANE
EXHIBIT 1







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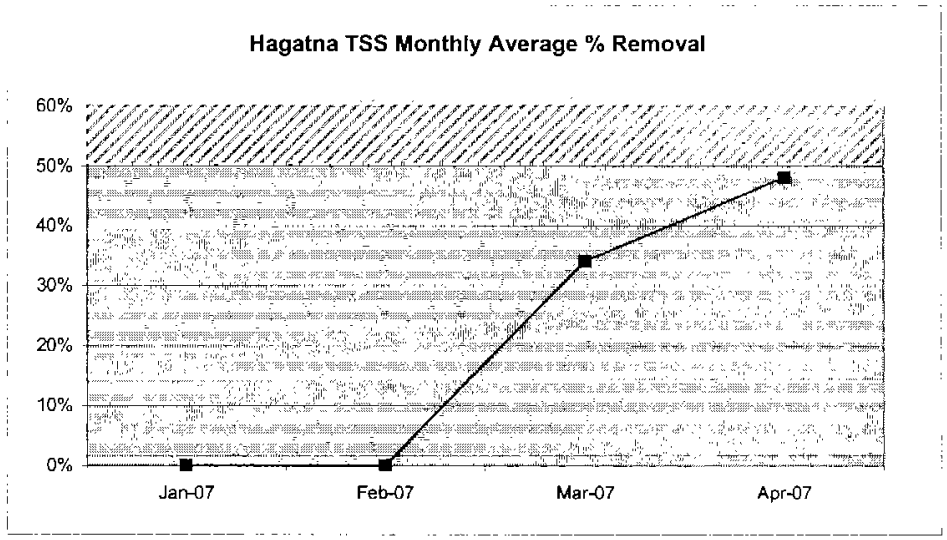

Typical values: 50-70%

DECLARATION OF JULIE R. SHANE
EXHIBIT 2

From: Lee.Michael@epa.gov [mailto:Lee.Michael@epa.gov]
Sent: Tuesday, July 17, 2007 7:20 AM
To: Julie Shane
Cc: 'Kevin Patrick'; 'Paul Kemp'
Subject: RE: Hagatna and N. Dist Performance Evaluations

Hi Julie,

Thanks for the revised schedule. You noted that it had been modified per my request relating to compression of the process control and DMR data evaluation. I may not be reading the schedule correctly but it doesn't look like the schedule has been modified compared to the previous one. The modified schedule still seems to show the process control and DMR data evaluations done separately, one after the other. Please let me know if this is correct.

Thanks,

Mike

DECLARATION OF JULIE R. SHANE
EXHIBIT 3

From: Lee.Michael@epa.gov [mailto:Lee.Michael@epa.gov]
Sent: Thursday, May 24, 2007 7:46 AM
To: 'Don Antrobus'
Cc: Julie Shane
Subject: Hagatna and N. Dist Performance Evaluations

Don,

I am reviewing the Performance Eval. Reports and I have a few questions:

Hagatna STP:

Based on the report GWA is planning to put grit removal at the STP by mid Feb. 2008. Will it be feasible to complete installation of the grit removal system at the Hagatna STP by 2/ 2008? I know this has been the longer term plan, however, I thought it was going to be a pretty big project. I assume this will be instead of the grit removal system at the Agana Main SPS?

Northern District STP:

According to the schedule, it will be at least a year before the evaluation is completed. Can the start of the "Commence Remaining Process Control" be started sooner at the completion of installation of the sludge pumps in mid Nov 2007? This would save approximately 2 months.

Also, can the evaluation of process control results and assessment of DMR data be done at the same time? This would save approximately 3 months.

Thanks,
Mike